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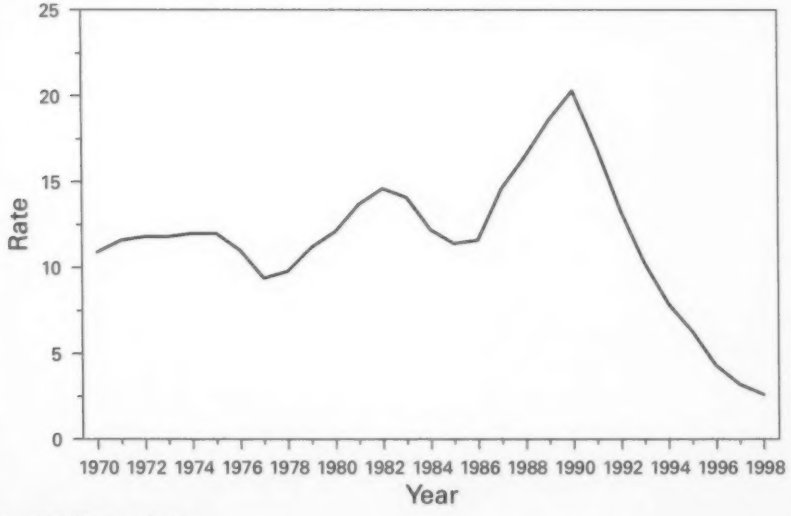
Primary and Secondary Syphilis — United States, 1998

Rates of primary and secondary (P&S) syphilis have been declining in the United States since the last national epidemic in 1990 (Figure 1) (*1*). Syphilis causes substantial morbidity and mortality in the form of cardiac and neurologic disease, stillbirth and developmental disability from congenital syphilis, and by facilitating transmission of human immunodeficiency virus (*2,3*). Syphilis is both preventable and curable and has been successfully controlled in most developed countries (*4*). In the United States, declines in P&S syphilis have been followed by epidemics occurring approximately every 7–10 years. During 1960–1990, these cyclical epidemics resulted in

FIGURE 1. Rates* of primary and secondary syphilis, by year — United States, 1970–1998



*Per 100,000 population.

Syphilis — Continued

progressively higher peaks in morbidity (*5*). To evaluate the epidemiology of syphilis in the United States, CDC analyzed notifiable disease surveillance data for 1998. This report summarizes the results of that analysis, which indicate that in 1998 P&S syphilis declined to the lowest rates ever reported in the United States and that syphilis transmission increasingly is concentrated in fewer geographic areas.

Summary data for syphilis cases reported to state health departments and the District of Columbia for 1998 were sent quarterly and annually to CDC. These data included the total number of syphilis cases by county of residence, sex, stage of disease, racial/ethnic group, and 5-year age group. Data on reported cases of P&S syphilis were analyzed for this report because these cases best represent incidence (i.e., newly acquired infections within the evaluated time). P&S syphilis rates were calculated per 100,000 persons using population denominators from the Bureau of the Census (*5*).

In 1998, 6993 cases of P&S syphilis were reported in the United States (rate: 2.6 cases per 100,000 population), representing a 19% decrease in cases reported in 1997 (rate: 3.2) and an 86% decrease from the 50,578 cases reported in 1990 (rate: 20.3), the peak of the most recent U.S. epidemic (*5*) (Figure 1). In 1998, the rate of P&S syphilis was higher in the South (5.1) than in the Midwest (1.9), West (1.0), and Northeast (0.8); the rate of decline from 1997 to 1998 was greater in the Northeast (27%) than in the South (22%), Midwest (3%), and West (0%).* The rate of P&S syphilis was higher in blacks (17.1) than in American Indians/Alaska Natives (2.8), Hispanics (1.5), non-Hispanic whites (0.5), and Asians/Pacific Islanders (0.4). In 1998, the rate ratio of P&S syphilis in non-Hispanic blacks compared with non-Hispanic whites was 34:1, which is substantially lower than 44:1 in 1997 and 53:1 in 1990. Rates for P&S syphilis were 30% higher in men than in women in 1998. The incidence of P&S syphilis was highest among women aged 20–24 years and among men aged 30–39 years.

During 1997–1998, the number of P&S syphilis cases declined or remained the same in 35 states and the District of Columbia (Table 1). The number of cases increased in 15 states; seven of these states are in the West. Although the absolute number of cases in the West was low, increases in Arizona and Washington were notable. Three other states reported substantial increases from 1997 to 1998: Louisiana, Indiana, and Michigan. Forty states had rates of P&S syphilis below 4.0, the target rate of the national health objectives for 2000 (objective 19.3) (*5*). Fourteen states reported five or fewer cases of syphilis.

In 1998, 28 (0.9%) of 3115 counties accounted for 50% of P&S syphilis cases (Table 2), a 10% decrease from 31 counties in 1997. The South was disproportionately represented in the counties with the highest number of cases (19 of 28 counties). Counties/cities with the highest number of cases were Baltimore, Maryland; Cook County, Illinois (Chicago); Shelby County, Tennessee (Memphis); and Davidson County, Tennessee (Nashville). In 1998, 10 of the 28 counties had an increase in cases of P&S syphilis. Counties with the greatest percentage increase in cases were Marion County, Indiana (Indianapolis), Mecklenberg County, North Carolina (Charlotte),

* *Northeast* =Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont; *Midwest* =Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin; *South* =Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia; and *West* =Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

Syphilis — Continued

TABLE 1. Reported primary and secondary syphilis cases, by state and percentage change, from 1997 to 1998 — United States

State	1997	1998	% Change
North Carolina	721	723	0
Maryland	891	648	–27
Tennessee	747	567	–24
Texas	676	443	–34
Louisiana	364	430	18
Illinois	435	424	–3
Georgia	515	333	–35
California	386	303	–22
Florida	296	294	–1
Alabama	410	274	–33
South Carolina	378	271	–28
Mississippi	390	261	–33
Indiana	151	215	42
Michigan	153	211	38
Arizona	132	185	40
Virginia	237	149	–37
Ohio	218	134	–39
New York	138	119	–14
Missouri	118	109	–8
Arkansas	173	108	–38
New Jersey	150	107	–29
Kentucky	135	106	–21
Oklahoma	117	98	–16
Pennsylvania	123	98	–20
District of Columbia	117	81	–31
Wisconsin	89	60	–33
Massachusetts	78	46	–41
Washington	17	44	159
Connecticut	62	26	–58
Delaware	22	21	–5
Nevada	11	15	36
Kansas	32	14	–56
New Mexico	9	14	56
Colorado	15	10	–33
Minnesota	16	9	–44
Nebraska	3	8	*
Oregon	10	6	–40
Iowa	7	5	–29
Hawaii	1	4	*
Utah	5	4	*
Vermont	0	4	*
West Virginia	1	3	*
Idaho	1	2	*
New Hampshire	0	2	*
Alaska	1	1	*
Maine	2	1	*
Rhode Island	2	1	*
South Dakota	1	1	*
Wyoming	0	1	*
Montana	0	0	*
North Dakota	0	0	*
Total	**8556**	**6993**	**–19**

*Percentage change not calculated for states with fewer than five cases.

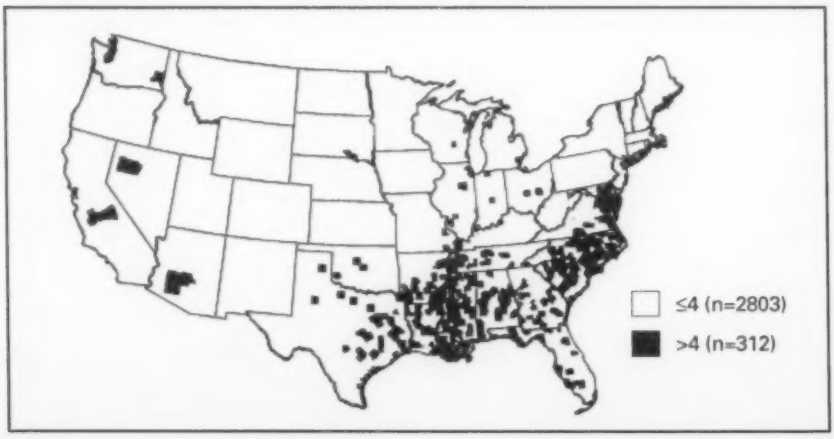
Syphilis — Continued

TABLE 2. Reported primary and secondary syphilis cases, by county and percentage change, from 1997 to 1998 — United States

County (Major cities)	1997	1998	% Change
Baltimore, Maryland*	665	456	–31
Cook County, Illinois (Chicago)	379	364	–4
Shelby County, Tennessee (Memphis)	343	260	–24
Davidson County, Tennessee (Nashville)	203	210	3
Maricopa County, Arizona (Phoenix)	118	173	47
Wayne County, Michigan (Detroit)	101	169	67
Marion County, Indiana (Indianapolis)	64	161	152
Fulton County, Georgia (Atlanta)	190	151	–21
Dallas County, Texas (Dallas)	148	126	–15
Los Angeles County, California (Los Angeles)	134	108	–19
Orleans Parish, Louisiana (New Orleans)	132	105	–20
Harris County, Texas (Houston)	180	99	–45
Guilford County, North Carolina (Greensboro)	149	98	–34
Jefferson County, Kentucky (Louisville)	107	91	–15
Philadelphia County, Pennsylvania (Philadelphia)	109	89	–18
District of Columbia	117	81	–31
Tuscaloosa County, Alabama (Tuscaloosa)	63	74	17
Mecklenburg County, North Carolina (Charlotte)	49	73	49
Oklahoma County, Oklahoma (Oklahoma City)	73	71	–3
St. Louis, Missouri*	64	58	–9
Franklin County, Ohio (Columbus)	54	56	4
Forsyth County, North Carolina (Winston-Salem)	79	54	–32
Prince George's County, Maryland (District of Columbia)	86	51	–41
Hinds County, Mississippi (Jackson)	61	51	–16
Milwaukee County, Wisconsin (Milwaukee)	92	51	–45
Wake County, North Carolina (Raleigh/Durham)	40	49	23
Lancaster County, South Carolina	33	47	42
Robeson County, North Carolina	34	46	35

*Independent city.

FIGURE 2. Counties with primary and secondary syphilis rates above the national health objective for 2000 of four cases per 100,000 population — United States, 1998



Syphilis — Continued

Maricopa County, Arizona (Phoenix), and Wayne County, Michigan (Detroit). In 1998, 2803 (90%) counties had rates of P&S syphilis equal to or below the 2000 national objective (Figure 2). In 1998, the number of counties reporting no cases of P&S syphilis increased to 2430 (78%) from 2324 (75%) in 1997.

Reported by: State and local health depts. Epidemiology and Surveillance Br, Statistics and Data Management Br, Div of Sexually Transmitted Diseases Prevention, National Center for HIV, STD, and TB Prevention, CDC.

Editorial Note: The number and rate of P&S syphilis cases reported in 1998 in the United States are record lows. Syphilis is progressively concentrated geographically; in 1998, 50% of P&S syphilis cases occurred in fewer counties than in 1997, and the number of cases in most of those counties declined in 1998. In 1998, approximately 80% of U.S. counties reported no infectious syphilis.

Despite progress in syphilis control nationally, increases have occurred in several states and local areas. Focal outbreaks have occurred in both Marion County, Indiana (Indianapolis) (associated with exchanging sex for drugs or money), and King County, Washington (Seattle) (associated with increases in cases among men who have sex with men) (*6,7*). The variation in demographics over time and between regions highlights the importance of analyzing demographic and behavioral information and developing targeted interventions. Despite considerable declines in syphilis rates, continued attention must focus on educating and screening persons in settings associated with high-risk behaviors, maintaining high quality surveillance systems, and recognizing changing demographics.

The findings in this report are subject to at least three limitations. First, the quality of surveillance varies at the local and state levels. Second, sexually transmitted disease (STD) reporting may be incomplete. Finally, reporting of syphilis may be biased toward overreporting of infections in persons of minority race/ethnicity who attend public STD clinics. The degree to which this bias influences reported rates of syphilis is unknown.

Syphilis results in severe health consequences with substantial social and economic cost. National annual direct and indirect costs of syphilis are an estimated $966 million (*8*). The low rates of P&S syphilis, the geographic concentration of infection, and the potential for another large-scale epidemic underscore the importance of initiating an effective elimination campaign (*4*). CDC, in collaboration with Health Resources and Services Administration, Substance Abuse and Mental Health Services Administration, the National Institutes and Health, the National Institute of Justice, and partners in state and local health departments, community-based organizations, and researchers, has developed a National Plan for Elimination of Syphilis from the United States (*9*). The five key strategies of the plan focus on enhanced community involvement and partnerships at local, state, and national levels, intensified surveillance, rapid outbreak response, expanded access to health care for those infected or exposed to syphilis, and improved health promotion.

Syphilis elimination in the United States has been defined as the absence of sustained transmission. The national goal for syphilis elimination is to reduce P&S syphilis cases to <1000 (rate: 0.4 per 100,000 population) and to increase the number of syphilis-free counties to 90% by 2005. Syphilis elimination can be the entry point for building or rebuilding broader public health capacity to control infectious disease and to assure reproductive health in historically underserved communities (*10*).

Syphilis — Continued

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Progress in Reducing Risky Infant Sleeping Positions — 13 States, 1996–1997

Sudden infant death syndrome (SIDS) is one of the leading causes of postneonatal mortality in the United States (*1*). To reduce the risk for SIDS, the American Academy of Pediatrics (AAP) recommends that all healthy babies be placed to sleep on their backs (*2*). In 1994, a national "Back-to-Sleep" education campaign was begun to encourage health-care providers and the public to adopt a back or side sleeping position for all infants (*3*). To assess the response to these recommendations, CDC analyzed population-based data on infant sleeping positions during 1996 and 1997 from 13 states participating in the Pregnancy Risk Assessment Monitoring System (PRAMS). This report summarizes the results of that analysis and indicates that from 1996 to 1997 placement of infants in the stomach sleeping position declined significantly in four states and placement of infants in the back sleeping position increased significantly in nine states. However, the percentage of infants placed on their stomachs continued to differ by state, maternal demographics, and type of insurance coverage.

PRAMS is an ongoing, population-based surveillance system that collects information on maternal behaviors and experiences. Each month, PRAMS surveys a random sample of mothers who have given birth during the previous 2–6 months using stratified, systematic sampling of the birth certificates of infants born to state residents. Mothers are mailed a questionnaire, and follow-up mailings are sent to nonrespondents. Additional attempts to contact nonrespondents are made by telephone. Most states oversample mothers of low birthweight (<5 lbs, 8 oz [<2500 g]) infants, and four states oversample women of selected racial/ethnic groups (*4*).

Mothers were asked, "How do you put your new baby down to sleep most of the time?" Response categories included on the baby's side, back, or stomach. Statistical

Infant Sleeping Positions — Continued

weights were applied to account for sampling probability, nonresponse, and sampling frame coverage in each state. Data from 10 states in 1996 and 13 states in 1997 were included in the analysis. The annual state-specific response rate to the entire questionnaire was approximately 70% (range: 69.4%–80.0%). Women who did not answer the sleeping position question (3.8% of all respondents) were excluded from the analysis. Because of the complex survey design, SUDAAN software was used to calculate point estimates and confidence intervals surrounding the estimates. For 1996 and 1997, data were analyzed for 15,191 and 18,701 respondents, respectively.

During 1997, the percentage of mothers who usually put their babies to sleep on their stomach varied by state (from 10.5% in Washington to 28.8% in Arkansas) (Figure 1). The prevalence of the stomach sleeping position decreased in all states from 1996 to 1997, but the percentage decline varied by state (from 7.4% in Alabama to 35.0% in Washington); significant declines ($p<0.05$) occurred in four of 10 states. In 1997, the percentage of mothers who usually put their babies to sleep on their back ranged from 32.4% in Florida to 54.7% in Colorado. The back position was the most frequently reported position in seven states. From 1996 to 1997, the prevalence of the back sleeping position increased in all states (range: 12.2%–55.5%); the increases were significant ($p<0.05$) in nine of 10 states. The prevalence of the side sleeping position ranged from 33.2% in Oklahoma to 42.6% in West Virginia in 1997 and declined in all states (percentage decline range: 3.2%–20.5%) from 1996 to 1997.

In 1997, black mothers in six of nine states were significantly more likely than were white mothers to place their babies on their stomach (risk ratio [RR]=0.99–2.13) (Table 1). Hispanic mothers were significantly less likely than were non-Hispanic mothers to put their babies to sleep on their stomach in two of five states that

FIGURE 1. Percentage of infants usually placed to sleep on their back, side, and stomach, by state — selected states, Pregnancy Risk Assessment Monitoring System, 1997

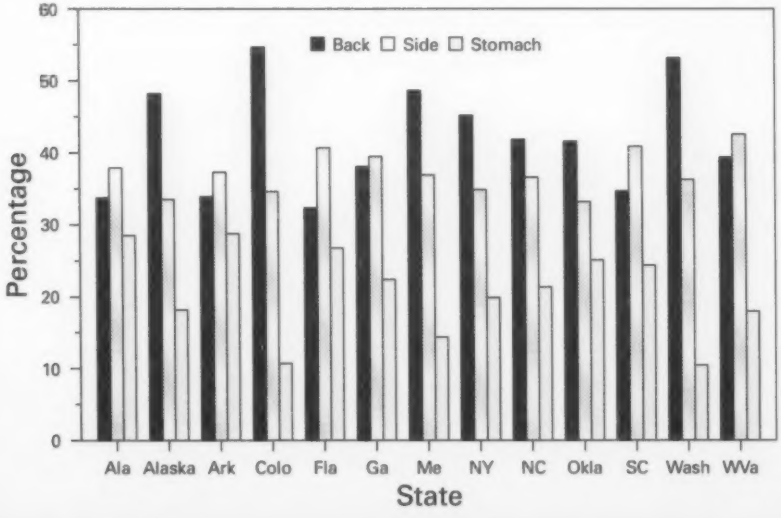

TABLE 1. Maternal characteristics associated with usually placing the infant on its stomach for sleep, by state — selected states, Pregnancy Risk Assessment Monitoring System, 1997

Characteristic	Alabama (n=1650)		Alaska (n=1209)		Arkansas (n=1477)		Colorado (n=1740)		Florida (n=2073)		Georgia (n=1056)		Maine (n=1119)		New York (n=1214)		North Carolina (n=757)		Oklahoma (n=1882)		South Carolina (n=1194)		Washington (n=2090)		West Virginia (n=1230)	
	%	(SE*)	%	(SE)	%	(SE)	%	(SE)	%	(SE)	%	(SE)	%	(SE)	%	(SE)	%	(SE)	%	(SE)	%	(SE)	%	(SE)	%	(SE)
Race†																										
Black	**35.4**	**(2.7)**§	—¶		31.5	(3.4)	—		**31.9**	**(2.0)**	**33.4**	**(2.8)**	—		27.5	(6.8)	**29.9**	**(4.3)**	**38.0**	**(6.2)**	24.6	(2.3)	**21.4**	**(2.2)**	—	
White	**24.9**	**(1.6)**	17.2	(1.6)	28.3	(2.0)	10.6	(1.0)	**25.8**	**(1.7)**	**17.0**	**(2.3)**	14.4	(1.2)	19.5	(1.6)	**18.6**	**(2.2)**	**24.1**	**(1.8)**	24.9	(3.2)	**10.0**	**(1.2)**	18.0	(1.4)
American Indian/ Alaska Native	—		18.1	(1.8)	—		—		—		—		—		—		—		—		19.5	(4.8)	11.8	(1.7)	—	
Ethnicity																										
Hispanic	—		—		—		5.5	(1.8)	**21.3**	**(2.9)**	—		—		20.2	(1.1)	—		23.4	(6.4)	—		**7.1**	**(1.2)**	—	
Non-Hispanic	—		—		—		12.1	(1.2)	**28.3**	**(1.5)**	—		—		18.5	(1.8)	—		25.3	(1.7)	—		**10.9**	**(1.2)**	—	
Parity																										
Multiparous	31.0	(2.0)	**20.7**	**(1.7)**	30.8	(2.4)	11.7	(1.4)	**29.1**	**(1.8)**	21.8	(2.3)	16.0	(1.7)	**22.6**	**(2.8)**	23.2	(2.1)	24.4	(2.1)	26.1	(2.5)	11.8	(1.5)	**20.6**	**(2.0)**
Primiparous	25.5	(2.0)	**14.1**	**(1.9)**	26.1	(2.5)	9.5	(1.5)	**23.4**	**(2.0)**	23.1	(2.8)	12.3	(1.7)	**16.0**	**(2.9)**	19.2	(2.3)	26.2	(2.6)	22.0	(2.7)	8.9	(1.5)	**14.8**	**(1.7)**
Insurance																										
Private	26.3	(2.0)	17.1	(1.7)	27.6	(2.4)	11.4	(1.2)	**23.6**	**(1.7)**	22.1	(2.7)	**12.0**	**(1.3)**	**16.4**	**(1.6)**	19.5	(2.5)	25.6	(2.1)	23.6	(2.5)	10.5	(1.3)	17.0	(2.0)
Public	30.9	(2.0)	19.7	(1.9)	30.5	(2.5)	8.8	(1.7)	**31.3**	**(2.2)**	22.8	(2.4)	**19.3**	**(2.5)**	**29.1**	**(3.6)**	23.7	(3.2)	24.4	(2.7)	25.3	(2.8)	10.5	(1.9)	18.8	(1.8)
Breast-fed																										
<1 week	28.4	(1.9)	19.3	(3.0)	30.3	(2.5)	12.5	(2.5)	**29.4**	**(2.2)**	25.0	(2.6)	14.4	(2.1)	20.5	(2.5)	**27.7**	**(3.4)**	25.4	(2.7)	24.8	(2.6)	12.7	(2.9)	17.4	(1.8)
>1 month	27.7	(2.7)	17.4	(1.5)	26.4	(3.0)	10.6	(1.2)	**22.7**	**(2.0)**	18.3	(2.9)	13.7	(1.6)	18.7	(2.1)	**17.5**	**(2.7)**	24.9	(2.5)	23.9	(3.1)	10.0	(1.3)	18.5	(2.5)
Smoked																										
Current	25.6	(2.9)	**23.8**	**(2.9)**	28.8	(3.7)	9.5	(2.1)	27.6	(3.4)	19.0	(4.0)	18.2	(2.1)	**26.8**	**(3.7)**	23.6	(4.8)	25.4	(3.3)	31.3	(4.6)	12.1	(2.8)	17.1	(2.5)
Nonsmoker	29.2	(1.7)	**16.5**	**(1.4)**	28.7	(2.0)	11.0	(1.2)	26.6	(1.5)	23.1	(2.1)	13.3	(1.3)	**17.7**	**(1.7)**	20.3	(2.2)	25.5	(2.0)	23.3	(2.0)	10.3	(1.2)	18.1	(1.7)

* Standard error.
† Numbers for Asians/Pacific Islanders were too small for meaningful analysis.
§ Point estimates in bold indicate significant differences.
¶ Sample size too small for meaningful analysis.

Infant Sleeping Positions — Continued

oversampled for race/ethnicity (RR=0.46–1.09). The decreases in the prevalence of stomach placement among American Indian/Alaska Native mothers ranged from 23.0% to 42.5%; however, rates among American Indian/Alaska Native mothers and white mothers were similar. Multiparous mothers in four of 13 states were significantly more likely to put their babies to sleep on their stomach (RR=0.93–1.47).

Reports of the stomach sleeping position were more frequent among mothers with publicly funded health insurance than among mothers with privately funded health insurance (RR=0.77–1.78). Placement on the stomach was more prevalent among mothers who breast-fed for <1 week than among mothers who breast-fed for >1 month (RR=0.91–1.58). No consistent relation was observed between postpartum smoking and stomach placement; however, stomach placement was significantly higher among postpartum smokers in two states. Minimal differences were observed between stomach placement and education level or maternal age. Although early initiators of prenatal care were more likely to avoid using the stomach sleeping position in 11 states, the differences were not statistically significant.

Reported by: Pregnancy Risk Assessment Monitoring System Working Group. Program Svcs and Development Br and Pregnancy and Infant Health Br, Div of Reproductive Health, National Center for Chronic Disease Prevention and Health Promotion, CDC.

Editorial Note: The findings in this report highlight substantial progress toward reducing the prevalence of the stomach sleeping position, an important modifiable risk factor for SIDS (*5*). From 1996 to 1997, respondents who reported usually placing their infants on the stomach declined across all states, with four states experiencing significant declines. As of 1997, Colorado (10.7%) and Washington nearly achieved the U.S. "Back to Sleep" campaign goal of no more than 10% of infants placed to sleep on the stomach (*6*). In all states, a major shift occurred to the back position. Compared with 1996 estimates from a national survey (*7*), PRAMS 1997 state-specific estimates of stomach placement were below the national average (24%) in eight states, and estimates for the back position were above the national average (35%) in nine states.

Despite these achievements, significant variations remain by state and by maternal characteristics in the adoption of AAP's Back to Sleep recommendation. According to a national survey, residents of states in the mid-Atlantic and southern regions were 41% and 47%, respectively, more likely than residents of other U.S. regions to place their babies on their stomachs (*7*). A similar pattern was observed in PRAMS states; on average, stomach placement was 10% higher in southern states than in nonsouthern states.

Black mothers were twice as likely as white mothers to place their infants on their stomachs (*7–9*). Excluding South Carolina, 1997 data from nine PRAMS states corroborate this association. PRAMS data and a national population-based study found a lower risk for stomach placement among Hispanics (*7*). The differences in placement for sleeping of infants among racial/ethnic groups may be a marker for other risk factors, such as low socioeconomic status. PRAMS data are similar to data from other studies that have shown a 50%–68% higher risk for stomach placement for multiparous mothers than for primiparous mothers (*7,9,10*). The relation between type of health insurance and infant sleeping position has not been examined previously, but PRAMS data suggest that stomach placement is more frequent among infants of publicly insured mothers than among privately insured mothers. Although breast-feeding

Infant Sleeping Positions — Continued

and current smoking were moderately associated with stomach placement in some states, other studies have failed to identify significant associations (*8,9*).

The findings in this report are subject to at least five limitations. First, PRAMS does not collect information from adoptive mothers or birth mothers who put their infants up for adoption, no longer care for their infants, or are nonresidents of the states in which they gave birth. Second, misclassification of sleep position may have occurred because mothers had difficulty recalling or assigning the sleep position they used most of the time. Because the question solicits only one response, mothers who selected multiple responses to the question were not included in the analysis. Third, the survey did not include other sleep-related questions such as stability of the initial sleep position during the night and changes in position with increasing infant age. Infant age at the time of the mother's response varied by state; however, no consistent correlation existed between the state-specific percentage of infants placed on the stomach and median infant age. Fourth, comparisons of PRAMS data with that from other studies are limited by differences in study design and timing of data collection. Finally, data may not be representative of states not participating in PRAMS.

Despite these limitations, the findings in this report provide states with the information necessary to monitor their progress toward achieving the 2000 goal and to identify populations that back-to-sleep campaigns should target. In several states, mothers who smoke, who have publicly funded health insurance, who breast-fed for <1 week, who already have one or more children, or who are black are more likely to place their infants to sleep on their stomach than mothers without these characteristics. These findings underscore the need to develop state-specific prevention programs and back-to-sleep messages targeting subgroups of mothers at high risk for placing their babies on their stomach.

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Update: Influenza Activity — Worldwide, May–September 1999

In collaboration with the World Health Organization (WHO), the WHO international network of collaborating laboratories, and state and local health departments, CDC conducts surveillance to monitor influenza activity and to detect antigenic changes in the circulating strains of influenza viruses. From October 1998 through April 1999, influenza activity was moderate to severe in the Northern Hemisphere. Influenza A(H3N2) viruses predominated but influenza type B viruses were isolated more frequently than influenza A in some countries. Influenza A(H1N1) viruses were isolated from sporadic cases in Asia, Europe, and North America, and from outbreaks in South America (*1*). Since May 1999, influenza activity associated primarily with influenza A(H3N2) viruses has peaked and is declining in the Southern Hemisphere. This report summarizes worldwide influenza activity during May–September 1999 and the antigenic characteristics of influenza isolates collected during May–August 1999.

Africa. During May–September, influenza A(H3N2) and influenza B viruses were reported in Mauritius, Senegal, and South Africa. Influenza B viruses were isolated in Madagascar. Influenza A viruses predominated in Mauritius and accounted for approximately half the influenza viruses isolated in South Africa. Influenza B viruses predominated in Senegal.

Asia. During May–August, influenza A(H3N2) viruses predominated in Asia and were reported from Hong Kong, Israel, Japan, Malaysia, Nepal, the Philippines, Singapore, Taiwan, and Thailand. Influenza A(H1N1) viruses were isolated in the Philippines, Taiwan, and Thailand. Influenza type B viruses were isolated from sporadic cases in China, Hong Kong, Israel, Taiwan, and Thailand.

Europe. From late May to early June, an outbreak of influenza A(H3H2) virus infections occurred aboard a British cruise ship sailing in the Mediterranean. During June and July, influenza A(H3N2) viruses were isolated in the United Kingdom and an influenza type B virus was isolated during July. Influenza A virus isolates were reported from Finland during July and August.

North America. During May–September 1999, an outbreak of influenza A(H3N2) virus infections occurred among tourists to Alaska and the Yukon Territory (*2*). A summer outbreak of influenza A(H3N2) occurred among travelers to the same region in 1998 (*3,4*). During June–September 1999, six additional outbreaks of influenza in the United States were reported to CDC. From late June to early July, a serologically confirmed influenza A outbreak occurred at a day care center for the elderly in Louisiana. During July, outbreaks of influenza A(H3N2) virus infection occurred in an Oklahoma nursing home, a Texas military base, and a Florida long-term–care facility for the mentally disabled. Influenza A(H3N2) outbreaks also occurred at several Florida correctional facilities during June through August. In September, an outbreak of influenza A(H3N2) infection occurred among passengers and crew aboard a ship sailing along the northeastern seaboard. During June through August, sporadic cases of influenza A were reported from Florida, Hawaii, Illinois, Washington, and Wisconsin. Influenza A(H3N2) viruses were isolated from sporadic cases in New York during June, Hawaii during July, and Texas during August. Influenza B viruses were reported from Hawaii during June. Sporadic cases of influenza A were reported from Canada throughout the summer.

Influenza Activity — Continued

Oceania. Influenza A viruses predominated in Australia, New Zealand, and New Caledonia. Influenza B viruses also were isolated and increased in number later in the influenza season. Most influenza A viruses were subtype A(H3N2). Influenza A(H1N1) viruses were isolated from sporadic cases in Australia and New Zealand and were associated with outbreaks in New Caledonia during May and June.

South and Central America and the Carribean. Influenza A(H3N2) viruses predominated in Argentina, Brazil, Chile, Panama, and Uruguay, and were reported from the Bahamas, Costa Rica, the Dominican Republic, Jamaica, and Puerto Rico. Influenza B isolates were reported from Argentina, Brazil, Chile, Colombia, Costa Rica, Paraguay, and Uruguay. Influenza A(H1N1) viruses were reported from Argentina, Brazil, Costa Rica, and Paraguay.

Characterization of influenza virus isolates. The WHO Collaborating Center for Reference and Research on Influenza at CDC analyzes isolates from laboratories worldwide. Isolates were collected during May–August, including those from the end of the 1998–99 influenza season and from summer 1999 in the Northern Hemisphere, and from the 1999 epidemic season in the Southern Hemisphere. Of the 41 antigenically characterized influenza B isolates, all 41 were similar to B/Yamanashi/166/98, the B/Beijing/184/93-like virus contained in the 1999–2000 influenza vaccine; 17 were collected from Central and South America, 12 were from Asia, 10 were from South Africa, Australia, and New Zealand, and two were from the United States.

Among 209 influenza A(H3N2) viruses tested, 180 (86%) were antigenically similar to A/Sydney/05/97, the H3N2 component of the 1999–2000 influenza vaccine; 29 (14%) H3N2 viruses, although related to A/Sydney/05/97, showed reduced titers against A/Sydney/05/97 antiserum in hemagglutination-inhibition tests. Of the 209 influenza H3N2 viruses tested, 110 were from Central and South America and the Carribean; 51 were from North America; 25 were from South Africa, Australia, or New Zealand; and 23 were from Asia.

Among 25 influenza A(H1N1) viruses collected during May–August, six (24%) were similar to A/Beijing/262/95, the H1N1 component of the 1999–2000 influenza vaccine, and 19 (76%) were antigenically related to A/Bayern/07/95. Of the A/Beijing/262/95-like viruses, five were from Australia, New Caledonia, and New Zealand, and one was from Asia. All the A/Bayern/07/95-like viruses were from Central and South America. Although A/Beijing/262/95 and A/Bayern/07/95-like viruses are antigenically distinguishable, persons vaccinated with A/Beijing/262/95 develop equivalent antibody levels against A/Bayern/05/97 and A/Beijing/262/95 (*5*).

Reported by: World Health Organization National Influenza Centers, Communicable Diseases, Surveillance and Response, World Health Organization, Geneva, Switzerland. A Hay, PhD, WHO Collaborating Center for Reference and Research on Influenza, National Institute for Medical Research, London, England. I Gust, MD, A Hampson, WHO Collaborating Center for Reference and Research on Influenza, Parkville, Australia. K Nerome, WHO Collaborating Center for Reference and Research on Influenza, National Institute of Infectious Diseases, Tokyo, Japan. WHO Collaborating Center for Reference and Research on Influenza, Influenza Br, Div of Viral and Rickettsial Diseases, National Center for Infectious Diseases, CDC.

Editorial Note: Influenza A(H3N2) viruses continued to predominate worldwide during May–September 1999. In the United States, summer influenza activity included an outbreak of influenza A(H3N2) virus infections among tourists to Alaska and the Yukon Territory and scattered outbreaks and sporadic cases in the 48 contiguous states and Hawaii similar to those seen during the summer of 1998 (*6*). During the past 2 years,

Influenza Activity — Continued

12 summer influenza outbreaks were reported to CDC. Whether these outbreaks represent increased levels of summer influenza activity or improved detection and reporting is unknown.

Annual influenza vaccination is recommended for persons aged ≥65 years, persons residing in nursing homes or long-term–care facilities, anyone aged 6 months–64 years with certain chronic medical conditions such as heart or lung disease (including asthma); diabetes; renal insufficiency; hemoglobinopathies; immunocompromising illnesses or conditions requiring the use of immunosuppressive medications; and children and adolescents aged 6 months–18 years receiving long-term aspirin therapy who may be at risk for developing Reye syndrome after influenza. Health-care providers, family members, and others in close contact with high-risk persons should be vaccinated to diminish virus transmission. Serious complications from influenza include pneumonia and worsening of underlying medical conditions and have resulted in an average of approximately 110,000 hospitalizations and 20,000 deaths annually in the United States (*7*).

Pregnant women with high-risk medical conditions should be vaccinated before the start of the influenza season regardless of their stage of pregnancy. Pregnant women without high-risk medical conditions, but who will be in their second or third trimester during the influenza season, are at elevated risk of complications and should be vaccinated. Some experts prefer to vaccinate these women during the second trimester to avoid a coincidental association with spontaneous abortion, which is common in the first trimester, and because exposures to vaccines traditionally have been avoided during the first trimester (*7*).

In the United States, the optimal time for organized influenza vaccination campaigns is October through mid-November; however, after mid-November, health-care providers should continue to offer influenza vaccine to high-risk unvaccinated persons throughout the influenza season even after influenza activity has begun in the community. The timing of influenza activity varies from year to year, and local influenza surveillance reports can be useful for determining when influenza viruses are in local circulation.

Although vaccination against influenza is the most effective method of reducing the impact of influenza, antiviral agents provide a useful adjunct. Amantadine and rimantadine are approved for the prophylaxis or treatment of influenza type A but neither is effective against influenza type B viruses (*7*). Zanamivir, an orally inhaled neuraminidase inhibitor drug, was approved by the Food and Drug Administration in July 1999 to treat uncomplicated influenza A and B infections.

Information about influenza surveillance and vaccination is available through the toll-free CDC Voice Information System, telephone (888) 232-3228, fax (888) 232-3299 (document no. 361100), or through CDC's World-Wide Web site, http://www.cdc.gov/ncidod/diseases/flu/weekly.htm. From October through May, information is updated weekly.

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Influenza Activity — Continued

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Reasons Reported by Medicare Beneficiaries for Not Receiving Influenza and Pneumococcal Vaccinations — United States, 1996

In the United States, influenza causes an average of 20,000 deaths per year; 90% of these death are among persons aged ≥65 years (*1*). Pneumococcal disease accounts for more deaths than any other vaccine-preventable bacterial disease (*2*). Annual influenza vaccination and one dose of pneumococcal polysaccharide vaccine can prevent complications from these infections among persons aged ≥65 years (*1,3*). In 1997, 65% of adults aged ≥65 years reported receiving influenza vaccination during the previous 12 months and 45% reported ever receiving pneumococcal vaccination (*4*). This report presents an analysis of responses to the 1996 Medicare Current Beneficiary Survey (MCBS) to describe self-reported vaccination status and reasons for not receiving influenza and pneumococcal vaccinations reported by Medicare beneficiaries aged ≥65 years; the findings indicate that most persons who had never received pneumococcal vaccination did not think they needed it, and those who had not received influenza vaccine did not know of the need for influenza vaccination and had misconceptions about its safety and efficacy.

MCBS is an ongoing, nationally representative, multistage, longitudinal survey of approximately 16,000 Medicare beneficiaries (*5*). Participants are interviewed in person every 4 months even if they have changed residences or live in long-term–care facilities. In the autumn of each year, respondents are asked, "Did you have a flu shot for last winter?" and "Have you ever had a shot for pneumonia?" During 1996, beneficiaries were asked for the first time why they had not been vaccinated for each vaccination they reportedly had not received. Beneficiaries were not provided with a response list. Interviewers assigned each reported reason to one of 23 categories that were created to accommodate all responses. Proxy respondents were used for persons who were incapacitated. Responses from 14,590 Medicare beneficiaries aged ≥65 years were weighted to represent the Medicare population in 1996. SUDAAN software was used to calculate prevalence estimates, 95% confidence intervals (CIs), and adjusted odds ratios (ORs) from multivariate logistic regression analyses. Multivariate logistic regression analyses were used to assess the association of the most commonly reported reasons for nonvaccination with race/ethnicity, controlling for age, income, education, region, vaccination status, health status, degree of debility, and presence of vaccine-indicated medical conditions.

Overall, 65.2% (95% CI=64.1%–66.4%) of beneficiaries reported receiving influenza vaccination for the winter of 1995–1996 and 45.1% (95% CI=43.8%–46.4%) reported

Influenza and Pneumococcal Vaccinations — Continued

ever having received pneumococcal vaccination; 39.3% (95% CI=38.1%–40.5%) of beneficiaries reported receiving both vaccinations and 29.1% (95% CI=28.5%–29.7%) reported receiving neither vaccination; 25.9% (95% CI=25.3%–26.5%) reported receiving only the influenza vaccination and 5.7% (95% CI=5.5%–6.0%) reported receiving only pneumococcal vaccination; of non-Hispanic whites, 67.9% (95% CI=66.7%–69.0%) received influenza vaccinations and 47.6% (95% CI=46.3%–49.0%) received pneumococcal vaccinations. Of non-Hispanic blacks, 45.8% (95% CI=42.6%–49.0%) received influenza vaccinations and 25.2% (95% CI=22.5%–27.8%) received pneumococcal vaccinations. Of Hispanics, 52.9% (95% CI=51.8%–53.9%) and 35.9% (95% CI=32.0%–39.8%) received influenza and pneumococcal vaccinations, respectively. Among other racial/ethnic groups (Asians/Pacific Islanders, American Indians/Alaska Natives, and others*) 58.9% (95% CI=52.5%–65.2%) received influenza and 35.6% (95% CI=29.3%–41.9%) received pneumococcal vaccinations.

Not knowing vaccination was needed was the most commonly reported reason for not receiving influenza (19%) or pneumococcal (57%) vaccination (Table 1). Cost of vaccination and difficulty reaching vaccinators were cited by <2% of beneficiaries. For both vaccines, 10%–15% of unvaccinated beneficiaries reported not thinking of, or missing, vaccination. Approximately 40% of beneficiaries who reported not receiving recent influenza vaccination cited concerns about the vaccine, including thinking it could cause influenza, could have side effects, or would not prevent influenza. Of beneficiaries reporting not having received pneumococcal vaccination, 13% cited lack of a doctor's recommendation as a reason.

Logistic regression analysis indicated racial/ethnic differences in three of the eight reasons cited by ≥10% of the nonvaccinated beneficiaries (Table 1). Hispanics and persons of other racial/ethnic groups were more likely than non-Hispanic whites to cite not being aware of the need for pneumococcal vaccination as a reason for nonvaccination (61% versus 55% [adjusted OR=1.8, 95% CI=1.3–2.4] and 66% versus 55% [adjusted OR=2.2, 95% CI=1.3–3.7]), respectively. Hispanics also were less likely than non-Hispanic whites to cite lack of a doctor's recommendation as a reason for not receiving pneumococcal vaccination (8% versus 13% [adjusted OR=0.5, 95% CI=0.2–0.9]). Non-Hispanic blacks were less likely than non-Hispanic whites to report thinking influenza vaccination could cause side effects as a reason for nonvaccination (11% versus 16% [adjusted OR=0.7, 95% CI=0.5–0.9]).

Reported by: D Drociuk, School of Public Health, Univ of South Carolina, Columbia, South Carolina. Office of Strategic Planning, Health Care Financing Administration, Baltimore, Maryland. Adult Vaccine-Preventable Diseases Br, Epidemiology and Surveillance Div, National Immunization Program, CDC.

Editorial Note: This study is the first nationally representative survey to assess Medicare beneficiaries' reasons for not receiving vaccinations. In 1996, the influenza vaccination level reported by Medicare beneficiaries aged ≥65 years exceeded 60%, the national objective for 2000 (objective 20.2). Although influenza and pneumococcal vaccinations are available at no charge to Medicare beneficiaries, approximately half had not received pneumococcal vaccination, and nearly one third reported receiving neither vaccination. Self-reported influenza and pneumococcal vaccination levels from the 1996 MCBS were consistent with estimates reported by the 1997 Behavioral Risk Factor Surveillance System and higher than levels reported by the 1995 National

*When presented separately, numbers for other racial/ethnic groups were too small for meaningful analysis.

Influenza and Pneumococcal Vaccinations — Continued

TABLE 1. Percentage of Medicare beneficiaries* in the Medicare Current Beneficiary Survey aged ≥65 years who reported reasons† for not receiving influenza vaccination during winter 1995–1996 and for not ever receiving pneumococcal vaccination — United States, 1996

Category	%	(95% CI§)
Reasons for not receiving influenza vaccination¶ (n=4503)		
"I did not know the flu shot was needed."	19.4	(17.2%–21.6%)
"Did not think of/missed it."	14.6	(13.1%–16.1%)
"Thought the flu shot could cause the flu."	13.9	(12.3%–15.5%)
"Thought the flu shot could have side effects."	13.7††	(12.3%–15.2%)
"Didn't think it would prevent the flu."	11.2	(9.8%–12.5%)
"Thought I was not at risk of catching the flu."	6.8	(5.8%– 7.7%)
"Don't like shots or needles."	5.9	(4.9%– 6.8%)
"Doctor recommended against the flu shot."	5.7	(4.7%– 6.7%)
"Doctor did not recommend the flu shot."	5.6	(4.5%– 6.6%)
"Unable to get to the location."	2.3	(1.8%– 2.8%)
"Had the flu shot before, did not need it again."	0.8	(0.5%– 1.1%)
"Cost of the shot not worth the money."	0.2	(0.1%– 0.4%)
Reasons for not receiving pneumococcal vaccination (n=6926)**		
"I did not know the pneumonia shot was needed."	57.4††	(54.4%–60.5%)
"Doctor did not recommend the pneumonia shot."	13.4††	(11.6%–15.2%)
"Did not think of it/missed it."	11.3	(9.3%–13.2%)
"Did not think it would prevent pneumonia."	4.3	(3.6%– 5.1%)
"Thought I was not at risk of catching pneumonia."	4.3	(3.6%– 5.0%)
"Don't like shots or needles."	2.6	(2.1%– 3.2%)
"Thought the pneumonia shot could have side effects."	2.4	(1.9%– 2.9%)
"Thought the pneumonia shot could cause pneumonia."	2.3	(1.9%– 2.8%)
"Doctor recommended against the pneumonia shot."	1.0	(0.7%– 1.3%)
"Unable to get to the location."	0.6	(0.4%– 0.8%)
"Cost of the shot not worth the money."	0.3	(0.1%– 0.5%)

*n=14,590, weighted to reflect the 1996 Medicare beneficiary population.
†At least one reason for not receiving influenza vaccination was reported by 91% of those who reported not receiving influenza vaccination; at least one reason for not receiving pneumococcal vaccination was reported by 87% of those who reported not receiving pneumococcal vaccination.
§Confidence interval.
¶Multiple responses were possible for not receiving the influenza vaccination and accounted for 9% of the total responses.
**Multiple responses were possible for not receiving the pneumococcal vaccination and accounted for 17% of the total responses.
††Logistic regression analysis indicated significant differences by racial/ethnic group.

Health Interview Survey (*4*). This report also documents lower vaccination levels among racial/ethnic minority groups than among non-Hispanic whites; however, observed differences in reasons for nonvaccination cited by non-Hispanic whites compared with persons in other racial/ethnic groups were relatively small and may be unimportant when planning interventions to improve vaccination levels for specific racial/ethnic groups.

The reasons reported by this national sample of Medicare beneficiaries for not receiving influenza or pneumococcal vaccination were consistent with previously reported data that indicated a lack of knowledge, misconceptions about vaccines and vaccine-associated illnesses, and lack of recommendations from physicians (*6–8*). In

Influenza and Pneumococcal Vaccinations — Continued

1996, lack of knowledge and lack of physician recommendations were the predominant reasons cited by Medicare beneficiaries for not receiving pneumococcal vaccination; 57% of beneficiaries who reported not receiving pneumococcal vaccination, i.e., 31% of the total 1996 Medicare population aged ≥65 years, were unaware that this vaccination was recommended.

Because physicians provide the greatest proportion of vaccinations to Medicare beneficiaries (Health Care Financing Administration, unpublished data, 1999), the 26% of beneficiaries who received influenza but not pneumococcal vaccination indicates that physicians miss opportunities to vaccinate older persons during office visits. Because physicians' recommendations for influenza and pneumococcal vaccination are accepted by patients even when they have negative perceptions about the vaccinations (*7*), health-care providers should include patient education with vaccination recommendations during scheduled appointments.

The findings in this study are subject to at least three limitations. First, reasons reported for nonvaccination may differ depending on how questions were asked (i.e., if respondents had been provided with a response list, the frequency of responses in different categories, such as lack of physician recommendation for vaccination, may have changed). Second, self-reports of influenza vaccination may be more reliable than self-reports of pneumococcal vaccination (*9*). Third, survey responses were not validated by medical record review.

For 2010, the proposed national objective for influenza and pneumococcal vaccination levels for high-risk persons is 90%, a 30% increase from the 2000 level (http://web.health.gov/healthypeople/2010Draft/object.htm†). To achieve this level, public, private, and community health-care providers must increase awareness of the need for vaccination and must reduce missed opportunities among older persons. The Initiative to Eliminate Racial and Ethnic Disparities in Health by 2010, which includes adult vaccination activities (http://raceandhealth.hhs.gov), has been implemented by CDC and other federal agencies. Effective mechanisms to improve vaccination of adults should be implemented, including physician and patient education coupled with provider and patient reminders and recalls, standing orders for vaccination, and feedback to providers on vaccination levels (*10*). Local public health planners should seek guidance from national survey data such as those from the MCBS and design surveys to identify interventions that address the reasons why older adults in their communities are not vaccinated.

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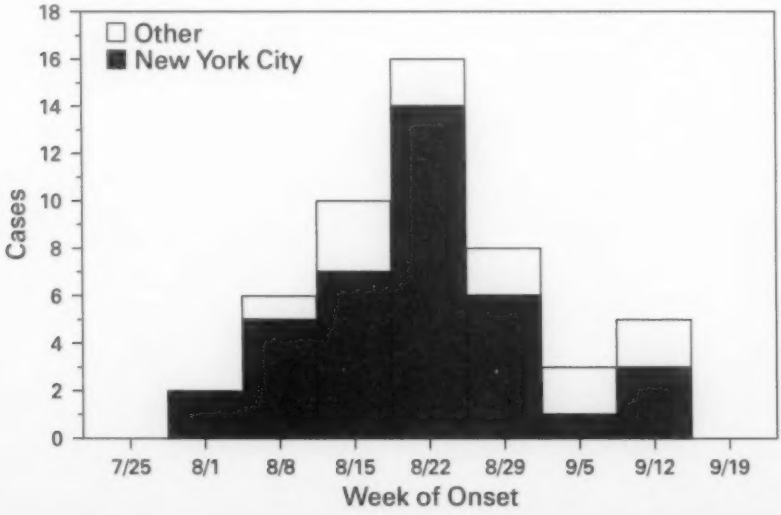
Update: West Nile-Like Viral Encephalitis — New York, 1999

The outbreak of human arboviral encephalitis attributable to a mosquito-transmitted West Nile-like virus (WNLV) continues to wane in the Northeast (Figure 1). As of October 5, the number of laboratory-positive cases had increased to 50 (27 confirmed and 23 probable), including five deaths. The increase in cases is mainly a result of completed retesting with West Nile virus antigen of specimens previously tested with the related St. Louis encephalitis virus antigen and to intensive retrospective case finding in the ongoing epidemiologic investigations (*1,2*).

Of the 50 case-patients, none had onset of illness after September 17. Thirty-eight resided within boroughs of New York City (NYC): 26 from Queens, nine from the Bronx, two from Manhattan, and one from Brooklyn. An additional 12 cases were reported from the adjacent counties of Westchester (eight) and Nassau (four). In NYC, the earliest laboratory-positive case occurred in a patient on August 4, followed by

FIGURE 1. Seropositive cases of West Nile-like virus, by week of onset — New York, 1999



West Nile-Like Viral Encephalitis — Continued

11 cases in patients from Queens with onset dates ranging from August 5 to August 18.

The association of WNLV with deaths in crows and domestic and exotic birds was confirmed during September. As a result, CDC, state wildlife veterinarians, and an expanding group of federal agencies are using deaths in crows as sentinel events to define the current geographic distribution of mosquitoes and birds infected with WNLV (*1*). As of October 5, results from selected bird tissue samples tested indicate that WNLV has been identified from 41 avian tissue specimens collected in NYC; Nassau, Suffolk, Rockland, and Westchester counties in New York; Fairfield County, Connecticut; and Bergen, Union, Middlesex, and Essex counties in New Jersey. No human cases of encephalitis attributable to WNLV have been reported from either Connecticut or New Jersey. Pools of *Culex* mosquitoes collected in localized areas of Queens, Brooklyn, and the Bronx in mid-September and a pool of *Culex pipiens* collected from Nassau County in late September have been positive for WNLV by reverse transcriptase polymerase chain reaction testing. One pool of *Culex pipiens* and one pool of *Aedes vexans* mosquitoes collected from a single trap in Greenwich, Connecticut, on September 13 yielded isolates of WNLV.

Reported by: A Fine, MD, M Layton, MD, J Miller, MD, D Cimini, MPH, MC Vargas, DVM, A Inglesby, MD, A Labowitz, K Bornschlegel, MPH, B Maldin, E Samoff, MPH, D Haddow, the New York City Outbreak Investigation Team, S Mullin, MSW, J Gadd, MPP, E Giebelhaus, MPP, L Mascuch, MSW, A Sher, M Foggin, BJ Mojica, N Cohen, MD, I Weisfuse, MD, R Bhalla, MD, E Lee, MD, D Malebranche, MD, G Sacajiu, MD, A Sharma, MD, M Eisenberg, A Ramon, MD, I Poshni, PhD, H Stirling, MPH, A Goldberg, New York City Dept of Health; J Hauer, MHS, Mayor's Office of Emergency Management, New York City; A Huang, MD, A Rosenberg, MD, P Yang- Lewis, MPH, HN Adel, MD, Westchester County Health Dept, New Rochelle; A Novello, MD, D White, PhD, D Morse, MD, K Spitalny, MD, R Gallo, S Wong, MD, L Grady, MD, M Eidson, DVM, B Wallace, MD, P Smith, MD, State Epidemiologist, New York State Dept of Health. M Cartter, MD, R Nelson, DVM, J Hadler, MD, State Epidemiologist, Connecticut Dept of Health; T Andreadis, PhD, Connecticut Agricultural Experiment Station. J Blumenstock, J Degraaf, F Sorhage, DVM, C Campbell, DVM, J Brook, MD, M Gerwell, MD, D Adams, K Bruder, R Kent, R Eisner, DVM, N Halperin, DVM, D Roscoe, DVM, E Bresnitz, MD, State Epidemiologist, New Jersey Dept of Health and Senior Svcs. W Crans, PhD, Rutgers Univ, New Brunswick, New Jersey. US Geologic Survey. Animal Plant and Health Inspection Svc, US Dept of Agriculture. Div of Applied Public Health Training, Epidemiology Program Office; Infectious Disease Pathology Activity, Div of Viral and Rickettsial Diseases, and Arbovirus Diseases Br, Div of Vector-Borne Infectious Diseases, National Center for Infectious Diseases; and EIS officers, CDC.

Editorial Note: Human cases of encephalitis attributable to WNLV should continue to decline in areas where WNLV activity has been documented because of the application of adulticidal and larvacidal mosquito-control compounds; however, persons in these areas should continue to use personal protective measures, including reducing outdoor exposures at dusk and at night; wearing long-sleeved shirts and pants; and applying to skin and clothing DEET-containing mosquito repellants according to label directions (*1*). Shorter days and the onset of colder weather eventually will lead to major declines in vector mosquito populations and will reduce human risk for exposure.

Confirmation that these WNLVs are virulent in a wide range of domestic and exotic birds has led to the formation of a cooperative federal working group. This working group, in cooperation with state and local health departments, will attempt to define the extent to which WNLVs are distributed in mosquito and bird populations outside the Northeast.

West Nile-Like Viral Encephalitis — Continued

The appearance of WNLV in the Western Hemisphere will necessitate enhanced vigilance for this virus during the transmission seasons for the next several years. Enhanced human surveillance for West Nile-like encephalitis will be a fundamental part of determining geographic distribution. To assist states in augmenting surveillance, CDC has distributed surveillance guidelines to state epidemiologists and state health laboratory directors. The guidelines include early warning tools for surveillance of arbovirus activity in nature, such as mosquito trapping for virus isolation and avian serologic and viral surveillance (*3*).

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Notice to Readers

International Infection Control Week — October 17–23, 1999

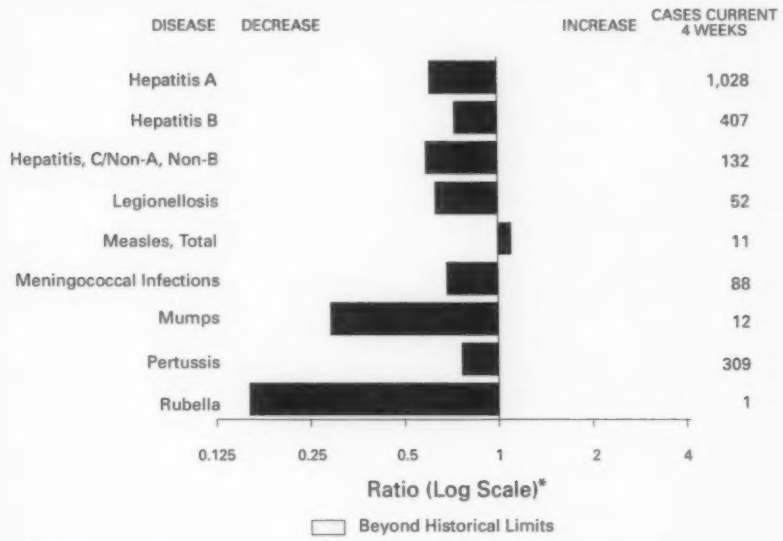
Each year, approximately 2 million health-care–associated infections occur in the United States. As many as one third of these infections is preventable, but prevention requires vigilance on the part of the entire health-care team. International Infection Control Week (October 17–23), observed by health-care facilities around the world, is intended to heighten public awareness of and professional commitment to, infection control. During the fall and winter months, infection-control professionals worldwide emphasize efforts to vaccinate persons against diseases such as influenza and pneumonia while confronting antimicrobial resistance in pathogens and emerging pathogens in the health-care setting. The Association for Professionals in Infection Control and Epidemiology has created an Infection Control Week Resource Kit addressing issues such as needlestick injuries, vaccinations, food safety, Lyme disease, and sexually transmitted diseases. This free kit is available on the World-Wide Web at http://www.apic.org*. Information about health-care–associated diseases also is available on the website of CDC's Hospital Infections Program, National Center for Infectious Diseases, at http://www.cdc.gov/ncidod/hip.

*References to sites of non-CDC organizations on the World-Wide Web are provided as a service to *MMWR* readers and do not constitute or imply endorsement of these organizations or their programs by CDC or the U.S. Department of Health and Human Services. CDC is not responsible for the content of pages found at these sites.

Erratum: Vol. 48, No. 38

In the box, "National Child Health Month—October 1999," on page 857 in the second paragraph, the last three World-Wide Web sites contained errors. The correct web sites are http://salud.unm.edu/asthma/chm/Childmo.htm; http://www.census.gov/population/ www/estimates/uspop.html; and http://www.hrsa.dhhs.gov/childhealth/outreach.htm.

FIGURE I. Selected notifiable disease reports, comparison of provisional 4-week totals ending October 2, 1999, with historical data — United States



*Ratio of current 4-week total to mean of 15 4-week totals (from previous, comparable, and subsequent 4-week periods for the past 5 years). The point where the hatched area begins is based on the mean and two standard deviations of these 4-week totals.

TABLE I. Summary — provisional cases of selected notifiable diseases, United States, cumulative, week ending October 2, 1999 (39th Week)

	Cum. 1999		Cum. 1999
Anthrax	-	HIV infection, pediatric*§	109
Brucellosis*	36	Plague	9
Cholera	4	Poliomyelitis, paralytic	-
Congenital rubella syndrome	4	Psittacosis*	16
Cyclosporiasis*	47	Rabies, human	-
Diphtheria	4	Rocky Mountain spotted fever (RMSF)	407
Encephalitis: California*	27	Streptococcal disease, invasive Group A	1,621
eastern equine*	5	Streptococcal toxic-shock syndrome*	29
St. Louis*	1	Syphilis, congenital¶	146
western equine*	-	Tetanus	27
Ehrlichiosis human granulocytic (HGE)*	117	Toxic-shock syndrome	89
human monocytic (HME)*	31	Trichinosis	8
Hansen Disease*	68	Typhoid fever	242
Hantavirus pulmonary syndrome*†	16	Yellow fever	-
Hemolytic uremic syndrome, post-diarrheal*	72		

-:no reported cases
*Not notifiable in all states.
†Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases (NCID).
§Updated monthly from reports to the Division of HIV/AIDS Prevention–Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention (NCHSTP), last update September 26, 1999.
¶Updated from reports to the Division of STD Prevention, NCHSTP.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending October 2, 1999, and October 3, 1998 (39th Week)

Reporting Area	AIDS		Chlamydia		Cryptosporidiosis		*Escherichia coli* O157:H7*			
							NETSS		PHLIS	
	Cum. 1999†	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998
UNITED STATES	34,088	35,254	436,096	438,891	1,627	2,978	2,394	2,236	1,501	1,786
NEW ENGLAND	1,698	1,354	14,947	15,349	105	123	249	275	228	231
Maine	54	24	738	730	20	25	31	32	-	-
N.H.	36	25	698	732	11	12	26	38	26	41
Vt.	13	17	355	316	32	21	24	18	14	14
Mass.	1,116	684	6,896	6,246	40	58	143	128	115	132
R.I.	77	98	1,723	1,709	2	7	25	11	6	1
Conn.	402	506	4,537	5,616	-	-	U	48	67	43
MID. ATLANTIC	8,684	9,591	48,985	45,562	255	449	203	241	60	81
Upstate N.Y.	952	1,103	N	N	115	269	155	173	-	-
N.Y. City	4,588	5,419	21,963	19,725	108	163	6	11	15	12
N.J.	1,619	1,753	7,688	8,738	22	17	42	57	32	48
Pa.	1,525	1,316	19,334	17,099	10	N	N	N	13	21
E.N. CENTRAL	2,280	2,565	60,981	74,433	371	595	496	354	367	304
Ohio	345	549	17,240	19,764	33	57	152	94	146	58
Ind.	258	412	7,898	8,210	32	48	73	78	36	41
Ill.	1,108	986	20,939	20,193	17	69	178	97	81	70
Mich.	456	466	14,904	15,932	40	33	93	85	62	60
Wis.	113	152	U	10,334	249	388	N	N	42	75
W.N. CENTRAL	770	661	25,090	26,065	174	239	493	377	268	345
Minn.	138	135	5,187	5,264	64	79	194	167	137	189
Iowa	69	58	2,982	3,312	50	60	97	76	57	49
Mo.	370	310	8,595	9,398	23	20	39	37	51	52
N. Dak.	6	4	325	762	16	27	16	10	1	14
S. Dak.	14	13	1,174	1,149	6	19	38	22	13	31
Nebr.	60	60	2,601	2,050	14	30	88	39	-	-
Kans.	113	81	4,226	4,130	1	4	21	26	9	10
S. ATLANTIC	9,423	9,157	99,733	84,485	281	237	253	184	138	143
Del.	129	112	1,968	1,920	-	3	6	-	3	2
Md.	1,113	1,300	7,701	5,610	12	16	20	34	1	14
D.C.	412	690	N	N	8	7	-	1	U	U
Va.	608	687	10,637	10,597	19	16	61	N	48	47
W. Va.	53	68	1,204	1,791	2	1	9	8	6	8
N.C.	629	637	17,093	16,469	15	N	54	44	46	42
S.C.	797	598	17,953	13,334	-	-	19	10	14	8
Ga.	1,382	979	21,374	17,349	114	81	27	61	-	-
Fla.	4,300	4,086	21,803	17,415	111	113	57	26	20	22
E.S. CENTRAL	1,536	1,440	34,759	30,545	24	20	98	98	53	54
Ky.	214	221	5,691	4,776	6	8	29	29	-	-
Tenn.	588	519	10,528	10,121	6	7	43	44	33	35
Ala.	405	395	9,657	7,609	10	N	21	20	16	17
Miss.	329	305	8,883	8,039	2	5	5	5	4	2
W.S. CENTRAL	3,524	4,187	61,491	66,322	64	854	73	77	76	81
Ark.	132	159	4,505	2,972	1	6	11	9	8	9
La.	663	705	10,879	10,754	22	14	9	4	11	5
Okla.	101	238	5,853	7,500	8	N	19	12	12	6
Tex.	2,628	3,085	40,254	45,096	33	834	34	52	45	61
MOUNTAIN	1,343	1,230	23,804	24,268	77	112	225	289	88	207
Mont.	8	23	1,099	999	10	10	17	15	-	5
Idaho	19	19	1,267	1,494	7	17	35	35	8	22
Wyo.	10	1	574	518	1	1	13	51	5	54
Colo.	235	230	4,710	6,041	11	15	81	62	40	48
N. Mex.	74	178	2,943	2,508	33	44	9	17	5	16
Ariz.	697	501	9,238	8,601	9	16	25	34	16	26
Utah	116	101	1,580	1,564	N	N	31	61	12	21
Nev.	184	177	2,393	2,543	6	9	14	14	2	15
PACIFIC	4,830	5,069	66,306	71,862	276	349	304	341	223	340
Wash.	285	331	8,798	8,395	N	N	122	72	104	102
Oreg.	151	138	4,697	4,101	86	58	62	N	55	87
Calif.	4,319	4,452	49,271	56,063	190	288	111	172	55	138
Alaska	13	17	1,424	1,403	-	-	1	4	-	-
Hawaii	62	131	2,116	1,900	-	3	8	-	9	13
Guam	5	-	226	302	-	-	N	N	U	U
P.R.	1,013	1,244	U	U	-	N	5	5	U	U
V.I.	25	24	U	U	U	U	U	U	U	U
Amer. Samoa	-	-	U	U	U	U	U	U	U	U
C.N.M.I.	-	-	U	U	U	U	U	U	U	U

N: Not notifiable U: Unavailable -: no reported cases C.N.M.I.: Commonwealth of Northern Mariana Islands

*Individual cases may be reported through both the National Electronic Telecommunications System for Surveillance (NETSS) and the Public Health Laboratory Information System (PHLIS).

†Updated monthly from reports to the Division of HIV/AIDS Prevention–Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention, last update September 28, 1999.

TABLE II. (Cont'd.) Provisional cases of selected notifiable diseases, United States, weeks ending October 2, 1999, and October 3, 1998 (39th Week)

Reporting Area	Gonorrhea		Hepatitis C/NA,NB		Legionellosis		Lyme Disease	
	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998
UNITED STATES	239,971	261,770	2,532	2,444	629	973	8,331	12,290
NEW ENGLAND	4,484	4,544	58	51	52	61	2,903	3,893
Maine	42	50	2	-	4	1	34	66
N.H.	83	71	-	-	6	3	9	34
Vt.	36	30	5	2	11	5	16	11
Mass.	1,902	1,819	48	46	15	28	888	640
R.I.	438	281	3	3	6	15	350	424
Conn.	1,983	2,493	-	-	10	9	1,606	2,718
MID. ATLANTIC	28,546	28,276	107	166	124	243	4,074	6,630
Upstate N.Y.	4,991	5,306	72	81	45	76	2,942	3,198
N.Y. City	9,463	8,893	-	-	9	32	28	186
N.J.	4,845	5,926	-	U	12	15	390	1,345
Pa.	9,247	8,151	35	85	58	120	714	1,901
E.N. CENTRAL	41,052	51,285	1,274	542	173	325	93	639
Ohio	10,421	12,770	1	7	55	102	58	33
Ind.	4,339	4,825	1	5	26	57	19	27
Ill.	15,724	16,766	33	36	10	41	10	13
Mich.	10,568	12,212	649	369	53	67	1	12
Wis.	U	4,692	590	125	29	58	5	554
W.N. CENTRAL	10,341	12,797	149	33	37	54	156	184
Minn.	1,986	1,989	7	9	6	6	99	141
Iowa	790	1,126	-	8	10	7	17	23
Mo.	4,448	6,683	131	11	14	14	17	11
N. Dak.	31	62	-	-	1	-	1	-
S. Dak.	132	179	-	-	2	3	-	-
Nebr.	1,128	849	5	3	4	17	10	3
Kans.	1,826	1,909	6	2	-	7	12	6
S. ATLANTIC	72,713	70,746	171	86	98	109	856	711
Del.	1,229	1,109	1	-	10	11	25	55
Md.	6,227	6,678	36	10	19	27	610	520
D.C.	2,882	3,360	1	-	3	6	3	4
Va.	7,074	7,107	10	11	25	16	94	51
W. Va.	363	657	17	6	-	N	14	9
N.C.	15,091	14,425	33	18	13	9	63	43
S.C	10,113	8,526	21	5	7	10	5	4
Ga.	14,359	15,141	1	9	1	8	-	5
Fla.	15,375	13,743	51	27	20	22	42	20
E.S. CENTRAL	27,927	29,381	214	238	34	54	69	89
Ky.	2,577	2,762	15	18	17	26	8	20
Tenn.	8,526	8,848	81	143	14	16	30	40
Ala.	8,694	9,808	2	4	3	5	18	16
Miss.	8,130	7,963	116	73	-	7	13	13
W.S. CENTRAL	34,736	40,836	177	383	6	20	25	19
Ark.	2,306	3,065	10	14	-	1	4	6
La.	8,653	9,279	102	41	2	2	-	4
Okla.	2,877	4,107	14	12	3	12	4	2
Tex.	20,900	24,385	51	316	1	5	17	7
MOUNTAIN	6,960	6,705	116	309	38	58	15	12
Mont.	33	32	5	7	-	2	-	-
Idaho	61	135	6	86	1	2	4	3
Wyo.	22	25	37	74	-	1	3	1
Colo.	1,765	1,543	19	22	11	14	-	-
N. Mex.	597	623	7	76	1	2	1	4
Ariz.	3,330	3,074	28	6	5	14	-	-
Utah	156	167	6	19	14	18	5	-
Nev.	996	1,106	8	19	6	5	2	4
PACIFIC	13,212	17,200	266	636	67	49	140	113
Wash.	1,520	1,462	13	17	11	9	6	6
Oreg.	671	608	15	16	N	N	11	17
Calif.	10,488	14,500	238	549	55	38	123	89
Alaska	231	241	-	-	1	1	-	1
Hawaii	302	389	-	54	-	1	N	N
Guam	32	49	-	1	-	2	-	1
PR.	215	291	-	-	-	-	N	N
V.I.	U	U	U	U	U	U	U	U
Amer. Samoa	U	U	U	U	U	U	U	U
C.N.M.I.	U	U	U	U	U	U	U	U

N: Not notifiable U: Unavailable -: no reported cases

TABLE II. (Cont'd.) Provisional cases of selected notifiable diseases, United States, weeks ending October 2, 1999, and October 3, 1998 (39th Week)

Reporting Area	Malaria		Rabies, Animal		Salmonellosis*			
					NETSS		PHLIS	
	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998
UNITED STATES	953	1,116	4,448	5,771	26,406	30,979	20,792	26,324
NEW ENGLAND	48	47	674	1,141	1,277	1,901	1,361	1,811
Maine	3	3	126	191	111	137	75	52
N.H.	2	5	44	54	109	146	110	185
Vt.	4	1	83	51	76	100	66	79
Mass.	15	16	156	402	901	1,054	718	1,073
R.I.	4	4	73	73	80	107	52	33
Conn.	20	18	192	370	U	357	340	389
MID. ATLANTIC	215	339	832	1,243	3,032	5,036	2,905	4,762
Upstate N.Y.	56	73	620	872	1,005	1,213	860	1,125
N.Y. City	94	193	U	U	993	1,542	803	1,284
N.J.	44	47	139	162	508	1,081	535	1,069
Pa.	21	26	73	209	526	1,200	707	1,284
E.N. CENTRAL	92	122	128	108	3,785	4,961	2,560	3,733
Ohio	18	13	29	50	838	1,183	764	919
Ind.	18	10	12	9	392	542	299	428
Ill.	20	50	9	N	1,243	1,544	399	1,151
Mich.	31	40	75	30	749	895	717	819
Wis.	5	9	3	19	563	797	381	416
W.N. CENTRAL	58	74	565	581	1,766	1,789	1,650	1,840
Minn.	30	42	84	94	515	425	545	500
Iowa	12	7	132	127	211	305	158	242
Mo.	12	14	12	31	536	492	708	676
N. Dak.	-	2	119	119	41	48	4	63
S. Dak.	-	-	129	130	75	93	58	99
Nebr.	-	1	2	6	169	148	-	31
Kans.	4	8	87	74	219	278	177	229
S. ATLANTIC	270	226	1,621	1,919	6,244	6,042	4,020	4,589
Del.	1	3	34	37	107	65	120	103
Md.	75	64	311	368	684	711	705	696
D.C.	16	15	-	-	62	60	U	U
Va.	55	48	415	456	1,017	849	789	705
W. Va.	2	2	89	63	121	116	117	118
N.C.	24	19	329	480	929	835	947	1,047
S.C.	13	5	119	117	478	442	349	412
Ga.	21	32	178	247	1,017	1,206	651	1,087
Fla.	63	38	146	151	1,829	1,758	342	421
E.S. CENTRAL	20	25	210	228	1,430	1,691	804	1,243
Ky.	7	5	32	27	309	291	-	124
Tenn.	7	13	77	120	324	443	423	550
Ala.	5	5	101	79	447	520	308	461
Miss.	1	2	-	2	350	437	73	108
W.S. CENTRAL	14	29	82	26	2,421	3,288	2,333	2,391
Ark.	1	1	14	26	458	412	120	293
La.	10	11	-	-	334	429	438	584
Okla.	2	3	68	N	328	355	212	163
Tex.	1	14	-	-	1,301	2,092	1,563	1,351
MOUNTAIN	37	53	160	210	2,310	1,943	1,502	1,685
Mont.	4	1	52	46	47	67	1	39
Idaho	3	7	-	N	80	90	56	75
Wyo.	1	-	39	54	47	57	22	50
Colo.	14	15	1	32	585	443	537	420
N. Mex.	2	12	8	5	267	241	208	210
Ariz.	7	8	48	41	730	611	600	591
Utah	3	1	7	26	406	274	25	122
Nev.	3	9	5	6	148	160	53	178
PACIFIC	199	201	176	315	4,141	4,328	3,657	4,270
Wash.	19	17	-	-	484	389	617	513
Oreg.	17	14	1	4	352	232	402	264
Calif.	155	164	168	288	2,992	3,455	2,402	3,247
Alaska	1	2	7	23	39	50	6	30
Hawaii	7	4	-	-	274	202	230	216
Guam	-	2	-	-	20	27	U	U
P.R.	-	-	47	38	255	555	U	U
V.I.	U	U	U	U	U	U	U	U
Amer. Samoa	U	U	U	U	U	U	U	U
C.N.M.I.	U	U	U	U	U	U	U	U

N: Not notifiable U: Unavailable -: no reported cases

*Individual cases may be reported through both the National Electronic Telecommunications System for Surveillance (NETSS) and the Public Health Laboratory Information System (PHLIS).

TABLE II. (Cont'd.) Provisional cases of selected notifiable diseases, United States, weeks ending October 2, 1999, and October 3, 1998 (39th Week)

Reporting Area	Shigellosis* NETSS Cum. 1999	Shigellosis* NETSS Cum. 1998	Shigellosis* PHLIS Cum. 1999	Shigellosis* PHLIS Cum. 1998	Syphilis (Primary & Secondary) Cum. 1999	Syphilis (Primary & Secondary) Cum. 1998	Tuberculosis Cum. 1999†	Tuberculosis Cum. 1998†
UNITED STATES	11,036	15,440	5,234	8,737	4,827	5,347	10,578	12,195
NEW ENGLAND	491	353	383	311	42	57	303	336
Maine	4	12	-	-	-	1	13	10
N.H.	14	14	12	18	-	1	10	-
Vt.	5	6	3	-	3	4	1	4
Mass.	450	234	315	223	26	34	181	191
R.I.	18	29	9	13	2	1	32	41
Conn.	U	58	44	57	11	16	66	90
MID. ATLANTIC	680	1,920	370	1,465	194	237	1,908	2,173
Upstate N.Y.	223	429	45	146	24	33	238	274
N.Y. City	215	590	82	542	67	55	1,043	1,053
N.J.	170	589	121	549	44	75	380	465
Pa.	72	312	122	228	59	74	247	371
E.N. CENTRAL	1,920	2,181	1,034	1,140	833	775	976	1,252
Ohio	326	408	105	99	68	113	180	184
Ind.	216	132	54	34	301	149	61	122
Ill.	769	1,189	592	953	312	320	447	597
Mich.	324	211	216	4	152	141	215	272
Wis.	285	241	67	50	U	52	73	77
W.N. CENTRAL	904	822	556	475	95	106	335	331
Minn.	196	257	190	284	9	6	116	111
Iowa	36	57	23	38	9	1	33	28
Mo.	560	98	304	76	60	81	134	121
N. Dak.	2	7	-	3	-	-	6	8
S. Dak.	11	30	5	21	-	1	12	16
Nebr.	62	332	-	18	7	4	15	11
Kans.	37	41	34	35	10	13	19	36
S. ATLANTIC	1,837	3,234	369	1,009	1,662	1,962	2,203	2,099
Del.	12	26	7	23	6	18	12	29
Md.	128	164	41	58	285	531	202	233
D.C.	45	22	U	U	52	67	34	85
Va.	96	159	43	72	121	119	168	222
W. Va.	7	11	4	7	2	2	32	30
N.C.	163	232	71	112	388	571	330	321
S.C.	101	140	51	63	330	240	206	219
Ga.	179	863	37	206	248	207	450	391
Fla.	1,106	1,617	115	468	230	207	769	569
E.S. CENTRAL	892	688	436	503	877	924	681	873
Ky.	208	97	-	45	79	81	144	127
Tenn.	508	168	380	261	483	425	245	274
Ala.	93	378	47	190	177	219	236	297
Miss.	83	45	9	7	138	199	56	175
W.S. CENTRAL	1,640	3,007	1,502	950	730	789	1,225	1,778
Ark.	67	156	21	50	56	85	129	104
La.	118	233	83	213	200	318	U	127
Okla.	413	313	128	86	145	59	100	137
Tex.	1,042	2,305	1,270	601	329	327	996	1,410
MOUNTAIN	798	915	429	587	178	198	304	411
Mont.	7	8	-	3	1	-	10	15
Idaho	21	18	7	13	1	2	14	7
Wyo.	3	3	1	1	-	1	3	4
Colo.	140	157	80	117	2	9	U	50
N. Mex.	95	229	59	125	9	22	48	48
Ariz.	410	432	271	290	157	148	163	154
Utah	50	37	5	28	2	3	31	45
Nev.	72	31	6	10	6	13	35	88
PACIFIC	1,874	2,320	155	2,297	216	299	2,643	2,942
Wash.	87	153	69	137	50	27	156	195
Oreg.	67	112	62	106	8	4	79	101
Calif.	1,694	2,018	-	2,018	154	265	2,240	2,473
Alaska	-	4	-	2	1	1	41	36
Hawaii	26	33	24	34	3	2	127	137
Guam	7	29	U	U	1	1	-	71
P.R.	62	46	U	U	121	145	41	122
V.I.	U	U	U	U	U	U	U	U
Amer. Samoa	U	U	U	U	U	U	U	U
C.N.M.I.	U	U	U	U	U	U	U	U

N: Not notifiable U: Unavailable -: no reported cases

*Individual cases may be reported through both the National Electronic Telecommunications System for Surveillance (NETSS) and the Public Health Laboratory Information System (PHLIS).

†Cumulative reports of provisional tuberculosis cases for 1999 are unavailable ("U") for some areas using the Tuberculosis Information System (TIMS).

TABLE III. Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending October 2, 1999, and October 3, 1998 (39th Week)

Reporting Area	*H. influenzae*, invasive		Hepatitis (Viral), by type				Measles (Rubeola)					
			A		B		Indigenous		Imported*		Total	
	Cum. 1999†	Cum. 1998	Cum. 1999	Cum. 1998	Cum. 1999	Cum. 1998	1999	Cum. 1999	1999	Cum. 1999	Cum. 1999	Cum. 1998
UNITED STATES	879	837	11,506	16,975	4,830	7,333	8	50	1	22	72	72
NEW ENGLAND	67	57	188	228	73	158	-	6	-	4	10	3
Maine	5	2	8	16	1	2	-	-	-	-	-	-
N.H.	16	9	13	10	13	14	-	-	-	1	1	-
Vt.	5	6	16	14	2	7	-	-	-	-	-	1
Mass.	25	34	82	99	30	57	-	5	-	2	7	2
R.I.	1	5	14	14	27	52	-	-	-	-	-	-
Conn.	15	1	75	75	-	26	-	1	-	1	2	-
MID. ATLANTIC	136	135	713	1,322	502	953	-	-	-	2	2	14
Upstate N.Y.	67	44	208	271	146	182	-	-	-	2	2	2
N.Y. City	29	37	199	460	154	336	-	-	-	-	-	-
N.J.	39	47	57	271	40	168	-	-	-	-	-	8
Pa.	1	7	249	320	162	267	-	-	-	-	-	4
E.N. CENTRAL	136	144	2,099	2,695	479	1,097	-	1	-	1	2	15
Ohio	47	43	473	253	70	59	-	-	-	-	-	1
Ind.	20	36	87	119	35	81	-	1	-	-	1	3
Ill.	58	50	452	617	1	192	-	-	-	-	-	-
Mich.	11	8	1,061	1,542	372	355	-	-	-	1	1	10
Wis.	-	7	26	164	1	410	-	-	-	-	-	1
W.N. CENTRAL	76	75	617	1,149	239	310	-	-	-	-	-	-
Minn.	36	58	59	101	41	35	-	-	-	-	-	-
Iowa	8	2	117	377	30	47	-	-	-	-	-	-
Mo.	23	8	341	538	126	186	-	-	-	-	-	-
N. Dak.	1	-	2	3	-	4	-	-	-	-	-	-
S. Dak.	1	-	8	21	1	2	-	-	-	-	-	-
Nebr.	3	1	50	24	14	16	-	-	-	-	-	-
Kans.	4	6	40	85	27	20	U	-	U	-	-	-
S. ATLANTIC	201	153	1,525	1,455	933	779	8	9	1	6	15	8
Del.	-	-	2	3	1	2	-	-	-	-	-	1
Md.	52	49	283	317	135	109	-	-	-	-	-	1
D.C.	4	-	54	48	21	10	-	-	-	-	-	-
Va.	15	15	122	170	70	81	8	9	1	3	12	2
W. Va.	6	5	30	4	22	5	-	-	-	-	-	-
N.C.	28	23	125	90	185	173	-	-	-	1	1	-
S.C.	5	3	39	31	61	30	-	-	-	-	-	-
Ga.	54	33	367	438	132	127	-	-	-	-	-	2
Fla.	37	25	503	354	306	242	-	-	-	2	2	2
E.S. CENTRAL	52	44	320	312	340	380	-	2	-	-	2	2
Ky.	6	7	54	25	33	37	-	2	-	-	2	-
Tenn.	28	25	142	181	170	208	-	-	-	-	-	1
Ala.	15	10	45	56	68	62	-	-	-	-	-	1
Miss.	3	2	79	50	69	73	-	-	-	-	-	-
W.S. CENTRAL	43	43	2,249	3,034	682	1,642	-	5	-	4	9	-
Ark.	2	-	43	71	36	85	-	-	-	-	-	-
La.	7	19	73	61	77	97	-	-	-	-	-	-
Okla.	30	22	372	455	102	71	-	-	-	-	-	-
Tex.	4	2	1,761	2,447	467	1,389	-	5	-	4	9	-
MOUNTAIN	80	93	1,032	2,544	464	645	-	3	-	-	3	-
Mont.	2	-	17	84	17	5	-	-	-	-	-	-
Idaho	1	-	35	207	23	27	-	-	-	-	-	-
Wyo.	1	1	6	33	12	6	-	-	-	-	-	-
Colo.	10	19	181	235	75	83	-	-	-	-	-	-
N. Mex.	18	5	40	115	148	256	-	-	-	-	-	-
Ariz.	38	46	604	1,527	122	141	-	1	-	-	1	-
Utah	7	3	38	160	27	59	-	2	-	-	2	-
Nev.	3	19	111	183	40	68	-	-	-	-	-	-
PACIFIC	88	93	2,763	4,236	1,118	1,389	-	24	-	5	29	30
Wash.	3	6	263	836	55	85	-	-	-	-	-	1
Oreg.	35	37	203	329	69	145	-	9	-	-	9	-
Calif.	38	40	2,278	3,010	970	1,115	-	15	-	4	19	7
Alaska	5	3	7	16	12	11	-	-	-	-	-	22
Hawaii	7	7	12	45	12	13	-	-	-	1	1	-
Guam	-	-	2	1	2	2	U	1	U	-	1	-
P.R.	1	2	112	51	102	190	-	-	-	-	-	-
V.I.	U	U	U	U	U	U	U	U	U	U	U	U
Amer. Samoa	U	U	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	U	U	U	U	U	U	U	U	U	U	U	U

N: Not notifiable U: Unavailable -: no reported cases

*For imported measles, cases include only those resulting from importation from other countries.

†Of 183 cases among children aged <5 years, serotype was reported for 84 and of those, 22 were type b.

TABLE III. (Cont'd.) Provisional cases of selected notifiable diseases preventable by vaccination, United States, weeks ending October 2, 1999, and October 3, 1998 (39th Week)

Reporting Area	Meningococcal Disease		Mumps			Pertussis			Rubella		
	Cum. 1999	Cum. 1998	1999	Cum. 1999	Cum. 1998	1999	Cum. 1999	Cum. 1998	1999	Cum. 1999	Cum. 1998
UNITED STATES	1,819	2,034	4	247	528	74	4,075	4,722	-	222	338
NEW ENGLAND	89	87	-	4	6	2	467	777	-	7	38
Maine	5	5	-	-	-	-	-	5	-	-	-
N.H.	12	11	-	1	-	-	74	77	-	-	-
Vt.	4	3	-	1	-	2	52	66	-	-	-
Mass.	51	40	-	2	4	-	303	582	-	7	8
R.I.	4	3	-	-	-	-	24	9	-	-	1
Conn.	13	25	-	-	2	-	14	38	-	-	29
MID. ATLANTIC	163	213	-	28	173	14	681	480	-	22	146
Upstate N.Y.	48	53	-	9	4	14	595	247	-	18	114
N.Y. City	43	25	-	3	153	-	10	30	-	-	18
N.J.	39	51	-	-	6	-	12	15	-	1	13
Pa.	33	84	-	16	10	-	64	188	-	3	1
E.N. CENTRAL	313	311	-	30	64	-	343	570	-	2	-
Ohio	114	113	-	11	23	-	156	191	-	-	-
Ind.	53	53	-	4	6	-	54	103	-	-	-
Ill.	84	84	-	8	9	-	49	69	-	1	-
Mich.	38	37	-	7	24	-	41	55	-	-	-
Wis.	24	24	-	-	2	-	43	152	-	-	-
W.N. CENTRAL	204	179	-	11	27	14	271	396	-	123	32
Minn.	44	29	-	1	12	7	139	213	-	5	-
Iowa	36	32	-	5	9	1	38	60	-	29	-
Mo.	80	66	-	2	3	6	47	28	-	2	2
N. Dak.	3	5	-	-	2	-	4	3	-	-	-
S. Dak.	11	7	-	-	-	-	5	8	-	-	-
Nebr.	12	13	-	-	-	-	3	14	-	87	-
Kans.	18	27	U	3	1	U	35	70	U	-	30
S. ATLANTIC	319	338	-	41	42	4	329	261	-	36	18
Del.	7	2	-	-	-	-	4	5	-	-	-
Md.	45	25	-	3	-	3	94	51	-	1	1
D.C.	1	1	-	2	-	-	-	1	-	-	-
Va.	41	29	-	8	7	1	18	26	-	-	1
W. Va.	5	13	-	-	-	-	2	1	-	-	-
N.C.	35	48	-	8	10	-	83	88	-	35	13
S.C.	39	49	-	4	6	-	15	25	-	-	-
Ga.	51	77	-	4	1	-	33	21	-	-	-
Fla.	95	94	-	12	18	-	80	43	-	-	3
E.S. CENTRAL	115	156	-	11	13	1	68	99	-	1	2
Ky.	25	28	-	-	-	1	20	41	-	-	-
Tenn.	43	55	-	-	1	-	28	31	-	-	2
Ala.	27	41	-	8	7	-	17	23	-	1	-
Miss.	20	32	-	3	5	-	3	4	-	-	-
W.S. CENTRAL	148	241	-	30	52	1	139	299	-	11	87
Ark.	31	26	-	-	10	-	17	60	-	4	-
La.	34	48	-	3	6	-	3	6	-	-	-
Okla.	25	33	-	1	-	-	12	22	-	-	-
Tex.	58	134	-	26	36	1	107	211	-	7	87
MOUNTAIN	114	113	4	19	34	28	485	837	-	16	5
Mont.	2	4	-	-	-	-	2	9	-	-	-
Idaho	8	9	-	1	4	1	128	200	-	-	-
Wyo.	4	5	-	-	1	-	2	8	-	-	-
Colo.	30	21	-	4	6	4	136	189	-	1	-
N. Mex.	13	21	N	N	N	3	100	80	-	-	1
Ariz.	37	37	4	4	6	19	58	177	-	13	1
Utah	13	10	-	5	5	1	54	139	-	1	2
Nev.	7	6	-	5	12	-	5	35	-	1	1
PACIFIC	354	396	-	73	117	10	1,292	1,003	-	4	10
Wash.	57	55	-	2	7	10	581	255	-	-	5
Oreg.	60	85	N	N	N	-	41	72	-	-	-
Calif.	227	268	-	59	85	-	638	647	-	4	3
Alaska	5	3	-	1	2	-	4	14	-	-	-
Hawaii	5	5	-	11	23	-	28	15	-	-	2
Guam	1	2	U	1	3	U	1	1	U	-	-
P.R.	5	9	-	-	3	-	16	4	-	-	9
V.I.	U	U	U	U	U	U	U	U	U	U	U
Amer. Samoa	U	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	U	U	U	U	U	U	U	U	U	U	U

N: Not notifiable U: Unavailable -: no reported cases

TABLE IV. Deaths in 122 U.S. cities,* week ending October 2, 1999 (39th Week)

Reporting Area	All Causes, By Age (Years)						P&I† Total
	All Ages	>65	45-64	25-44	1-24	<1	
NEW ENGLAND	531	380	88	35	17	11	53
Boston, Mass.	141	101	27	6	3	4	10
Bridgeport, Conn.	35	26	5	3	1	-	1
Cambridge, Mass.	U	U	U	U	U	U	U
Fall River, Mass.	19	15	3	1	-	-	-
Hartford, Conn.	U	U	U	U	U	U	U
Lowell, Mass.	16	9	4	1	1	1	1
Lynn, Mass.	11	4	4	3	-	-	-
New Bedford, Mass.	32	25	6	1	-	-	3
New Haven, Conn.	46	39	5	-	1	1	6
Providence, R.I.	72	48	16	8	3	3	12
Somerville, Mass.	4	2	2	-	-	-	-
Springfield, Mass.	50	37	6	2	5	-	4
Waterbury, Conn.	40	28	8	4	-	-	4
Worcester, Mass.	65	46	8	6	3	2	12
MID. ATLANTIC	2,188	1,520	435	151	40	40	82
Albany, N.Y.	42	31	7	3	1	-	-
Allentown, Pa.	U	U	U	U	U	U	U
Buffalo, N.Y.	83	63	13	6	-	1	5
Camden, N.J.	33	19	13	1	-	-	-
Elizabeth, N.J.	14	14	-	-	-	-	-
Erie, Pa.	47	37	9	1	-	-	6
Jersey City, N.J.	U	U	U	U	U	U	U
New York City, N.Y.	1,108	762	210	97	17	21	21
Newark, N.J.	61	37	15	5	1	3	2
Paterson, N.J.	16	8	5	1	1	1	3
Philadelphia, Pa.	409	264	100	24	15	5	20
Pittsburgh, Pa.§	48	35	8	3	-	-	4
Reading, Pa.	28	22	3	-	2	1	2
Rochester, N.Y.	119	89	24	4	-	2	10
Schenectady, N.Y.	17	14	1	1	-	1	-
Scranton, Pa.	21	20	-	-	-	1	-
Syracuse, N.Y.	86	60	17	4	2	3	5
Trenton, N.J.	33	23	7	1	1	1	3
Utica, N.Y.	25	22	3	-	-	-	1
Yonkers, N.Y.	U	U	U	U	U	U	U
E.N. CENTRAL	1,852	1,301	316	148	38	44	142
Akron, Ohio	56	38	10	6	-	2	7
Canton, Ohio	44	34	5	1	1	3	6
Chicago, Ill.	400	246	85	43	13	9	36
Cincinnati, Ohio	152	105	23	12	5	7	12
Cleveland, Ohio	125	87	20	10	2	5	3
Columbus, Ohio	165	117	26	17	2	3	13
Dayton, Ohio	112	85	16	9	2	-	8
Detroit, Mich.	U	U	U	U	U	U	U
Evansville, Ind.	57	42	11	3	-	1	2
Fort Wayne, Ind.	50	40	9	-	-	1	2
Gary, Ind.	24	16	3	2	2	1	1
Grand Rapids, Mich.	61	47	8	4	1	1	8
Indianapolis, Ind.	149	101	32	13	2	1	14
Lansing, Mich.	48	32	8	4	2	2	8
Milwaukee, Wis.	112	86	16	5	1	4	5
Peoria, Ill.	43	29	10	-	3	1	5
Rockford, Ill.	49	37	9	2	-	1	2
South Bend, Ind.	58	41	10	4	2	1	3
Toledo, Ohio	82	65	9	7	-	1	6
Youngstown, Ohio	65	53	6	6	-	-	1
W.N. CENTRAL	610	439	110	35	15	11	47
Des Moines, Iowa	59	47	10	2	-	-	12
Duluth, Minn.	U	U	U	U	U	U	U
Kansas City, Kans.	U	U	U	U	U	U	U
Kansas City, Mo.	83	64	13	3	3	-	9
Lincoln, Nebr.	46	32	6	5	3	-	-
Minneapolis, Minn.	164	121	25	8	6	4	19
Omaha, Nebr.	87	61	17	7	1	1	4
St. Louis, Mo.	96	59	28	5	1	5	-
St. Paul, Minn.	75	55	13	5	1	1	3
Wichita, Kans.	U	U	U	U	U	U	U
S. ATLANTIC	1,104	687	239	126	29	22	81
Atlanta, Ga.	U	U	U	U	U	U	U
Baltimore, Md.	252	156	39	35	8	13	26
Charlotte, N.C.	84	55	18	8	1	2	7
Jacksonville, Fla.	143	89	30	18	5	1	7
Miami, Fla.	112	64	29	14	4	1	1
Norfolk, Va.	56	36	13	3	1	3	2
Richmond, Va.	66	37	18	8	3	-	4
Savannah, Ga.	55	35	11	7	1	1	7
St. Petersburg, Fla.	57	45	9	2	1	-	5
Tampa, Fla.	133	88	33	9	2	1	18
Washington, D.C.	126	66	35	22	3	-	4
Wilmington, Del.	20	16	4	-	-	-	-
E.S. CENTRAL	819	527	181	71	19	21	43
Birmingham, Ala.	170	110	33	17	4	6	7
Chattanooga, Tenn.	71	45	17	5	2	2	3
Knoxville, Tenn.	75	56	11	6	1	1	1
Lexington, Ky.	86	53	25	5	1	2	4
Memphis, Tenn.	163	98	36	18	5	6	12
Mobile, Ala.	91	61	19	7	3	1	4
Montgomery, Ala.	42	28	8	5	-	1	7
Nashville, Tenn.	121	76	32	8	3	2	5
W.S. CENTRAL	1,147	720	243	121	33	30	81
Austin, Tex.	74	53	15	4	1	1	2
Baton Rouge, La.	32	26	2	2	2	-	1
Corpus Christi, Tex.	45	32	7	3	1	2	3
Dallas, Tex.	204	124	46	21	4	9	12
El Paso, Tex.	40	31	6	3	-	-	-
Ft. Worth, Tex.	102	68	20	7	3	4	10
Houston, Tex.	411	226	93	69	15	8	41
Little Rock, Ark.	56	36	16	2	2	-	-
New Orleans, La.	U	U	U	U	U	U	U
San Antonio, Tex.	U	U	U	U	U	U	U
Shreveport, La.	65	37	19	4	2	3	5
Tulsa, Okla.	118	87	19	6	3	3	7
MOUNTAIN	726	475	153	62	17	18	44
Albuquerque, N.M.	81	51	19	4	4	3	1
Boise, Idaho	34	26	3	2	2	1	1
Colo. Springs, Colo.	66	37	18	7	1	3	2
Denver, Colo.	81	46	24	6	2	3	3
Las Vegas, Nev.	191	121	45	19	5	-	16
Ogden, Utah	26	23	1	2	-	-	2
Phoenix, Ariz.	52	32	13	4	1	2	5
Pueblo, Colo.	U	U	U	U	U	U	U
Salt Lake City, Utah	83	57	14	7	-	5	5
Tucson, Ariz.	112	82	16	11	2	1	9
PACIFIC	1,610	1,158	284	96	31	41	119
Berkeley, Calif.	12	10	1	-	-	1	1
Fresno, Calif.	104	82	13	6	1	2	12
Glendale, Calif.	25	21	3	1	-	-	-
Honolulu, Hawaii	67	56	10	1	-	-	3
Long Beach, Calif.	68	49	11	5	-	3	11
Los Angeles, Calif.	413	275	80	27	10	21	21
Pasadena, Calif.	30	22	5	1	1	1	1
Portland, Oreg.	136	108	18	7	2	1	10
Sacramento, Calif.	176	117	42	13	1	3	24
San Diego, Calif.	141	99	27	8	5	2	13
San Francisco, Calif.	U	U	U	U	U	U	U
San Jose, Calif.	173	123	30	13	5	2	10
Santa Cruz, Calif.	34	26	7	1	-	-	4
Seattle, Wash.	110	76	20	8	4	2	-
Spokane, Wash.	40	34	4	-	1	1	5
Tacoma, Wash.	81	60	13	5	1	2	4
TOTAL	10,587¶	7,207	2,049	845	239	238	692

U: Unavailable -: no reported cases

*Mortality data in this table are voluntarily reported from 122 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

†Pneumonia and influenza.

§Because of changes in reporting methods in this Pennsylvania city, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

¶Total includes unknown ages.

Contributors to the Production of the *MMWR* (Weekly)
Weekly Notifiable Disease Morbidity Data and 122 Cities Mortality Data

Samuel L. Groseclose, D.V.M., M.P.H.

State Support Team
Robert Fagan
Jose Aponte
Paul Gangarosa, M.P.H.
Gerald Jones
David Nitschke
Carol A. Worsham

CDC Operations Team
Carol M. Knowles
Deborah A. Adams
Willie J. Anderson
Fredrick Browder
Patsy A. Hall
Kathryn Snavely

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